DOCUMENT RESUME

ED 380 294 SE 055 952

AUTHOR	Hocking, Colin; And Others
TITLE	Global Warming & the Greenhouse Effect. Grades 7-10. Teacher's Guide. Great Explorations in Math and Science (GEMS).
INSTITUTION	California Univ., Berkeley. Lawrence Hall of Science.
REPORT NO	ISBN-0-912511-75-3
PUB DATE	90
NOTE	174p.
AVAILABLE FROM	Great Explorations in Math and Science (GEMS), Lawrence Hall of Science, University of California, Berkeley, CA 94720.
PUB TYPE	Guides - Classroom Use - Teaching Guides (For Teacher) (052)
EDRS PRICE	Document Not Available from EDRS.
DESCRIPTORS	Chemistry; Climate Change; Environmental Education; *Global Warming; *Greenhouse Effect; Instructional Materials; *Integrated Curriculum; Physics; *Science Activities; Science Curriculum; Science Education; *Science Experiments; *Scientific Concepts; Secondary Education
IDENTIFIERS	Atmospheric Sciences; *Environmental Concepts

ABSTRACT

This series of educational activities is intended to help teachers communicate basic scientific concepts related to global warming and the greenhouse effect to students grades 7-10. Seven sessions provide laboratory activities, simulations, and discussions that can be used to improve student understanding of a number of important scientific concepts, including the molecular model of heat, ways in which energy is transferred, how objects attain a stable temperature, and the structure of the atmosphere. Activities encourage students to apply scientific knowledge to considerations of the social and ecological consequences of global warming. Section titles are: (1) "Introduction"; (2) "Time Frame"; (3) "Session 1: What Have You Heard About the Greenhouse Effect?"; (4) "Session 2: Modeling The Greenhouse Effect"; (5) "Session 3: The Global Warming Game"; (6) "Session 4: Detecting Carbon Dioxide"; (7) "Session 5: Sources of Carbon Dioxide in the Atmosphere"; (8) "Session 6: Changes On Noua's Island"; (9) "Session 7: The Worldwide Effects of Climate Change"; (10) "Session 8: World Conference on Global Warming"; (11) "Going Further" (nine extension activities); (12) "Behind the Scenes" (background reading for teachers); (13) "Resources" (33 entries); (14) "Literature Connections" (10 fiction and non-fiction); and (15) "Summary Outlines." (LZ)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****